

- 13 -

CLAIMS

1. Method for making a decorative effect on the surface of an object characterised in that it comprises the steps of:
  - 5       -- arranging an object in the vicinity of means for delivering molten metal,
  - feeding a metal supply to said means for delivering,
  - melting said metal supply at said means for delivering thus creating small particles of molten metal,
  - 10       -- contemporaneous feeding a gas current at a determined pressure in the means for delivering, the current entraining the particles of molten metal
  - 15       bringing them on the surface of the object to coat.
2. Method, according to claim 1, wherein said melting of said metal supply by said melting means is carried out in an environment at a pressure lower than or the same as atmospheric.
- 20 3. Method, according to claim 1, wherein said means for delivering have a melting site directly upstream from a nozzle whereby the gas current at a determined pressure conveys the said particles of molten metal and brings them through said nozzle spreading them on
- 25       said surface to coat.
4. Method, according to claim 1, wherein said gas current at a determined pressure is created by a main gas flow at a fixed pressure and an auxiliary gas flow at an adjustable pressure, whereby it is possible to adjust
- 30       the pressure of said gas flow fed to the melting site by adjusting the pressure of said auxiliary gas flow.
5. Method, according to claim 1, wherein said metal supply is at least one metal wire.

- 14 -

6. Method according to claim 6, wherein said melting means are actuated by an electrical arch that discharges itself between said material supply and an electrode consisting of a inert conductive material or a meltable material selected from the group:

- at least one metal wire,
- at least one metal powder associated to an inert electrode,
- at least one metal oxide.

7. Method according to claim 1, wherein said melting means are actuated by the combustion of a gas fuel with a comburent gas at said melting site.

8. Method, according to claims 1 and 5, where at least a first wire metal supply in soft metal and at least a second metal wire in metal or metal alloy different from that of the first layer are provided.

9. Method, according to claims 1 and 8, where the metallization of said object provides the preliminary application of a soft metal layer on the surface to coat and the successive application of a decorative metal layer on the soft metal layer.

10. Method, according to claim 9, wherein said soft metal is selected from the group of tin, aluminium, zinc and said hard metal, is selected from the group of copper, brass, steel, bronze, and various alloys with decorative function.

11. Method, according to claim 1, wherein preliminarily to said step of application of a metal layer on said surface of said object to coat a drying step is provided, for example in an oven, for removing the humidity that can be present in the porosity of the material of which is said object is made.

12. Method, according to claim 11, wherein said drying step is followed by a step of application of a layer

- 15 -

of waterproofing material on the surface opposite to said surface to metallize.

13. Method, according to claim 1, wherein at the end of the metallization step said metal coated surface of said object is subject to at least one step of finishing, wherein said step of finishing is an oxidization of at least one portion of the external metal layer.

14. Method, to provide a decorative effect on the surface of an object, said object comprising at least one metal layer, **characterised in that it provides a step of oxidization of at least one portion of said metal layer**, wherein said step of oxidization of said metal layer is carried out electrochemically and comprises the steps of:

- arranging the object having at least one metal layer in the vicinity of oxidizing means;

- feeding a measured amount of a saline solution towards said oxidizing means;

- applying a voltage to said oxidizing means, said oxidizing means discharging an electric current on said metal layer and causing the oxidization of at least one portion thereof.

15. Method according to claim 14 wherein said at least one metal layer is obtained with a metallization step according to claims from 1 to 12.

16. Method, according to claim 14, wherein said saline solution comprises at least one metal ion type.

17. Method, according to claim 14, wherein said oxidizing means comprise at least a first conductive element and at least a second conductive element connected respectively to the positive pole and to the negative pole of an electric current generator, contacting said

- 16 -

metal layer by a pad of spongy material that spreads said solution on said metal layer.

18. Method, according to claim 14, wherein said electric current supplied to the oxidizing means is applied with a voltage less than 20 volts.

5

19. Decorative element for the building industry and furnishing characterised in that it comprises an object, in particular of ceramics or other inert material, of stone, wood, plastics, in metal, having at least one metal coated surface according to claims from 1 to 12.

10